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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/623,353	<b>Applicant(s)</b> GANN ET AL.
	<b>Examiner</b> Nhan T. Tran	<b>Art Unit</b> 2622

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

1)  Responsive to communication(s) filed on 7/10/2007 & 4/20/2007.

2a)  This action is **FINAL**.                            2b)  This action is non-final.

3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

4)  Claim(s) 1-10 and 13-21 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5)  Claim(s) \_\_\_\_\_ is/are allowed.  
6)  Claim(s) 1-10 and 13-21 is/are rejected.  
7)  Claim(s) \_\_\_\_\_ is/are objected to.  
8)  Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

9)  The specification is objected to by the Examiner.

10)  The drawing(s) filed on \_\_\_\_\_ is/are: a)  accepted or b)  objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)  The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a)  All b)  Some \* c)  None of:  
1.  Certified copies of the priority documents have been received.  
2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3.  Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1)  Notice of References Cited (PTO-892)  
2)  Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3)  Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_

4)  Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_  
5)  Notice of Informal Patent Application  
6)  Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 7/10/2007 has been entered.

### ***Response to Arguments***

2. Applicants' arguments filed 7/10/2007 have been fully considered but they are not persuasive.

The Applicants assert that the newly recited limitations in claims 1 & 19 are not taught by Kanamori. Specifically, Kanamori does not disclose "the enclosure further including a second processor that is connected to the photosensor, the second processor used in conjunction with the first processor to control the capture of an image on the photosensor." as required in claim 1 and "wherein control of the capture of the image resides in a combination of a first processor and a second processor both connected to the photosensor and residing in the digital camera and the enclosure, respectively." as required in claim 19 (remarks, pages 8-9).

In response, the Examiner understands the Applicants' arguments but respectfully disagrees with the Applicants' assessment of Kanamori. As clearly taught by Kanamori, the enclosure includes a processor (a second processor or a control circuit; **col. 6, lines 25-35**) that is connected to the photosensor of the digital camera (via cable 80 as shown in Fig. 4) so as to allow the user to capture an image by pressing the shutter button (34) on the enclosure body in addition to other control modes (i.e., flash, exposure control, etc., col. 6, lines 40-67). It should be noted that the processor of the enclosure is connected to the image sensor of the digital camera by virtue of an intermediate processor (a first processor) of the digital camera in order for the combined enclosure and digital camera to function as disclosed. In fact, the digital camera is a stand-alone camera (when it is used separately) that inherently includes an image sensor and a processor. Thus, the combined control from the enclosure processor and the camera processor in Kanamori clearly controls the image sensor and the camera in the manner as the Applicants' claimed invention. Therefore, Kanamori meets all limitations of claims 1 & 19.

The Applicants further argue that Kanamori and Da Silva do not teach the newly recited limitations in claim 21 as similar to claims 1 & 19. The Applicants also assert that Takematsu, Inoue and Niikawa fail to remedy the deficiencies of Kanamori (remarks, pages 10-13).

In response, the Examiner respectfully submits the same analysis to claim 21 as discussed in claims 1 & 19 above. Furthermore, since the Kanamori has met the newly recited limitations of claims 1, 19 & 21, the teachings of Da Silva, Takematsu, Inoue and

Niikawa are not relied upon for those limitations (see previous office action and the following art rejection).

In view of the above, the claimed limitations, in fact, read on the disclosure of cited references.

***Information Disclosure Statement***

3. The information disclosure statement (IDS) submitted on 4/20/2007 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-7, 13-15, 19, 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Kanamori et al. (US 6,138,826).

Regarding claim 1, Kanamori et al. (hereafter referred as "Kanamori") discloses an image capture system (Figs. 1-4; col. 5, lines 6-12) comprising:

a digital camera (e.g., a digital camera 18), the digital camera comprising at least a photosensor and a first processor (see Fig. 4 and col. 5, lines 6-12 and col. 7, lines 1-

4, wherein a photosensor and a processor are inherent in such the digital camera 18 for capturing an image and displaying on the camera's LCD 60 as disclosed); an enclosure (a waterproof case 10) configured to receive the digital camera (Figs. 1-4 and col. 5, lines 6-12), configured to have a plurality of features (i.e., capture modes at dial button 66, exposure correction 68, flash modes 70, display mode 72, etc...as shown in Fig. 2) controlling operation of the digital camera, and configured to capture an image using the photosensor of the digital camera (see Fig. 2; col. 6, line 25 – col. 7, line 4 in which the waterproof case 10 captures an image using the image sensor of the digital camera 18 by controlling the operation of the digital camera in response to the operational features provided on the waterproof case), the plurality of features each increasing operational sophistication of the digital camera, the enclosure further including a second processor (a control circuit in the enclosure) that is connected to the photosensor (via cable 80 shown in Fig. 4), the second processor used in conjunction with the first processor to control the capture of an image on the photosensor (see col. 3, lines 49-65 and col. 6, lines 25-67, and note the Examiner's response in section 2 above).

Regarding claim 2, Kanamori further discloses that the first processor and the second processor are further configured to control operation of the digital camera and the enclosure (see col. 6, line 25 – col. 7, line 4).

Regarding claim 3, also discloses by Kanamori is that the first processor is configured to control operation of the digital camera and the enclosure (see col. 10, line 58 – col. 11, line 20 and col. 7, lines 1-4, wherein the inherent first processor included in the digital camera 18 is to process signal(s) for controlling both the operation of the digital camera and the enclosure by capturing an image, displaying the image in addition to measuring object's brightness and outputting a slight flash emission at the built-in flash of the digital camera or a flash control signal via a synchronization cable. The flash control signal sent from the digital camera based on the measurement of object's brightness controls the waterproof case 10 by triggering the flash device 28 for synchronization); the second processor is configured to control at least partial operation of the enclosure (i.e., controlling flash; see col. 6, lines 25-65 and col. 10, lines 11-41).

Regarding claim 4, see the Examiner's analysis of claim 3 in which the second processor controls the operation of the enclosure (col. 6, lines 25-65 and col. 10, lines 13-41).

Regarding claim 5, it is clear that the first processor and the second processor operate in conjunction to control operation (flashing operation) of the enclosure. See col. 10, line 11 – col. 11, line 20 in which the first processor of the digital camera controls the flash device 28 of the waterproof case in automatic flash mode by measuring object's brightness and outputting flash synchronization signal via a cable or a slight flashing of the camera's built-in flash to the flash control circuit 100. The flash

control circuit 100 of the waterproof case then directly controls quantity of flash emission of flash device 28 to emit much more flash quantity than the camera's built-in flash.

Regarding claim 6, Kanamori discloses that the enclosure further comprises: a first portion (a case body 12 shown in Fig. 3 and col. 5, lines 6-12); a second portion (a lid 16 shown in Fig. 3 and col. 5, lines 6-12); wherein the digital camera (18) is configured to be enclosed within the first portion and the second portion (see Figs. 3 & 4 and col. 7, lines 8-30).

Regarding claim 7, also clearly disclosed by Kanamori is that the enclosure further comprises a receptacle (Figs. 3 & 4) configured to receive the digital camera (see col. 7, lines 8-30).

Regarding claim 13, it is also seen in Kanamori that the enclosure further comprises at least one indicator (flashing of flash device 28) configured to indicate an operation of image capturing not indicated by the digital camera. See Figs. 1-4 and col. 10, line 11 – col. 11, line 20 in which the digital camera 18 and its built-in flash is completely enclosed in the enclosure 10 and therefore cannot indicate to the user by flashing. Instead, the enclosure 10 produces flash emission by the flash device 28 to indicate that the image is captured.

Regarding claim 14, Kanamori clearly discloses that the digital camera further comprises a first lens (a taking lens of the digital camera 18) and the enclosure comprises a second lens (a wide angle lens 56 of the enclosure 10 shown in Fig. 5), the second lens having at least one feature (wide angle feature) different from the first lens (see col. 9, lines 48-65).

Regarding claim 15, as disclosed in col. 9, lines 48-65, the enclosure further comprises a lens coupler (Fig. 5) configured to couple the second lens to the enclosure, and where the lens coupler permits the second lens to detach (by unscrewing wide angle lens 56) from the enclosure.

Regarding claim 19, Kanamori discloses a method for capturing images (col. 2, lines 46-49), the method comprising the steps of:

coupling a digital camera (18) and an enclosure (10), the digital camera residing within a recess (42) of the enclosure (see Fig. 4 and col. 5, lines 30-54 and col. 6, lines 25-35);

providing a plurality of image capture features on the enclosure (i.e., capture modes, flash modes, exposure correction, etc. shown in Fig. 2), the plurality of image capture features controlling operation of the digital camera, the plurality of image capture features each increasing operational sophistication of the digital camera (see col. 3, lines 49-65; col. 5, lines 55-62; col. 6, lines 25-67 and col. 10, lines 23-25 and

note the Examiner's response above for the explanation of increasing operational sophistication of the digital camera);

selecting at least one image capture feature (i.e., a capture mode or a flash mode) among the plurality of image capture features using a device (e.g., operating buttons) residing on the enclosure (Fig. 2 and col. 6, lines 25-63) and capturing an image on a photosensor (an inherent image sensor of the digital camera 18) residing in the digital camera (col. 6, line 25 – col. 7, line 4), the image captured through a lens (Fig. 5) residing on the camera enclosure (see col. 5, lines 55-63 and col. 9, lines 48-65), wherein control of the capture of the image resides in a combination of a first processor (inherent camera processor as discussed in claim 1) and a second processor (enclosure processor as discussed in claim 1) both connected to the photosensor and residing in the digital camera and the enclosure, respectively (see Figs. 1-4 and col. 6, line 25 – col. 7, line 16 and note the Examiner's response in section 2 above).

Regarding claim 20, Kanamori further discloses the step of capturing the image with the digital camera when the digital camera is decoupled from the camera enclosure (see col. 4, lines 9-11 and col. 7, lines 1-4, 60-67 in which the digital camera 18 operates to capture images as a stand-alone digital camera when it is detached from the enclosure 10).

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 8 & 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kanamori et al. (US 6,138,826) in view of Takematsu (US 2003/0214593 A1).

Regarding claim 8, although Kanamori teaches the waterproof case 10 including a built-in flash device 18 and the digital camera causing the flash device 28 to flash in accordance with a synchronous signal sent from the digital camera during photography (col. 5, lines 20-30 and col. 11, lines 11-20), Kanamori does not explicitly teach that the enclosure further comprises a coupler configured to receive a flash attachment, and wherein the digital camera is configured to cause the flash attachment to flash.

However, in the reference to Takematsu, a digital camera (15) enclosed in a waterproof housing (9) is taught (see Figs. 1-4; paragraphs [0001] and [0030]). The waterproof housing includes both a built-in flash (3) and an external flash (11) attached to a coupler (7) of the housing such that the external flash (11) and/or the built-in flash (3) is configured to flash in response to the operation of the shutter release during photography (Takematsu, Fig. 1 and paragraphs [0036] and [0040]). According to Takematsu, the use of both of the built-in flash (3) in the housing and the external flash attachment (11) provides the imaging apparatus to capture good photographs with right exposures as suggested by Takematsu, paragraph [0012].

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the enclosure of Kanamori to include a coupler configured to receive a flash attachment such that the digital camera would be configured to cause the flash attachment and/or the built-in flash of the enclosure to flash during photography so as to obtain good photographs with right exposures under different lighting conditions as suggested by Takematsu.

Regarding claim 9, Kanamori discloses that the digital camera (18) further comprises a first grip (an inherent side portion of the camera) and the enclosure (10) further comprises a second ergonomic grip larger than the first grip (see Kanamori, Figs. 1, 2 & 4). Kanamori, however, does not explicitly disclose that the first grip is an ergonomic grip.

As taught by Takematsu, a digital camera (15) comprises an ergonomic grip (under shutter button 3 shown in Fig. 3 and paragraphs [0029] & [0030]). The digital camera is enclosed within a waterproof housing (9) having another ergonomic grip (Fig. 2). Such ergonomic grip of the camera would provide the user a better and comfortable handling of the camera in ergonomic fashion when the camera is detached from the housing to operate as a stand-alone device.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to make the digital camera of Kanamori with an ergonomic grip which is smaller than the ergonomic grip of the waterproof case to provide better

and comfortable handling of the digital camera when the digital camera is detached from the housing to operate as a stand alone device.

6. Claims 10 & 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kanamori et al. (US 6,138,826) in view of Da Silva (US 6,819,866 B2).

Regarding claim 10, Kanamori teaches that the digital camera comprises a first display (LCD 60 shown in Fig. 4) and the enclosure comprises a transparent window (62) (col. 5, lines 64-67). Kanamori does not teach a second display located on the enclosure and being larger than the first display of the camera.

Da Silva teaches a waterproof housing (2) that contains a camera (4) therein (Figs. 1-3). Da Silva further teaches a LCD monitor (20) provided on the housing for displaying images and/or information related to the system (see Da Silva, col. 8, line 65 – col. 9, line 7 and col. 10, lines 50-51). According to Da Silva, the LCD monitor is **preferably at least 3 inches in size** which is relatively larger than a conventional LCD monitor of a camera (see Da Silva, col. 10, lines 40-49).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the enclosure of Kanamori in view of the teaching of Da Silva to replace the transparent window 62 with a relatively large LCD display which is larger than the LCD display of the digital camera so as to improve viewing area with larger view of a captured image while avoiding any limitation on a user's peripheral vision as suggested by Da Silva, col. 9, lines 1-8.

Regarding claim 21, Kanamori discloses a method for capturing images (col. 2, lines 46-49), the method comprising the steps of:

generating an image capture instruction (a shutter release instruction) using a device (i.e., a shutter button 34 shown in Figs. 1-3) residing on an enclosure (a waterproof case 10) (see col. 6, line 25 – col. 7, line 4);

communicating (via cable 80 and connector 80A shown in Fig. 4) the image capture instruction to a digital camera (a digital camera 18) coupled to the enclosure and residing within a recess of the enclosure (Fig. 4 and col. 6, line 25 – col. 7, line 4); capturing an image with a photosensor (an inherent image sensor of the digital camera 18) residing in the digital camera, the step of capturing performed in accordance with the received image capture instruction (i.e., the shutter release instruction), the step of capturing implemented under control of a combination of a first processor (digital camera processor as discussed in claim 1) residing in the digital camera and a second processor (enclosure processor as discussed in claim 1) residing in the enclosure, the first processor and the second processor connected to the photosensor (see col. 6, line 25 – col. 7, line 16 and note the Examiner's response in section 2 above).

Kanamori fails to disclose that the capture instruction is generated by a remote device communicatively coupled to the enclosure.

In the same field of endeavor, Da Silva teaches a waterproof housing (2) that contains a camera (4) therein (Figs. 1-3) and a universal remote control device (keypad 11 shown in Fig. 2) for controlling the operation of the camera so that the user can

control a plurality of different types of video cameras in a convenient manner as suggested in col. 1, lines 30-42; col. 7, lines 46-58 and col. 8, lines 49-61.

Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Kanamori and Da Silva to provide the enclosure with a universal remote control device for controlling the camera enclosed therein by generating an image capture instruction in addition to other commands so as to enable the user to remotely control a plurality of different types of video cameras in a convenient manner.

7. Claims 16 & 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kanamori et al. (US 6,138,826) in view of Inoue (US 5,822,622).

Regarding claim 16, Kanamori discloses the image capture system including a wide angle lens and an automatic focus operation of a lens in an AUTO mode (col. 6, lines 48-54). Kanamori fails to disclose that the enclosure further comprises a focus ring residing on the enclosure and configured to adjust a focus of the image.

However, as taught by Inoue, a camera (80) is enclosed in a waterproof housing (20) which further includes an adjusting ring (35 or 55) provided thereon for manually adjusting focus of an image (see Inoue; Figs. 1, 4 & 5; col. 3, lines 32-49, col. 4, lines 46-60 and col. 5, lines 11-46). Inoue clearly teaches that the implementation of the manual control of focus of an image using the adjusting ring residing on the waterproof

housing is to improve focus operation to obtain a satisfactory image in a case when the automatic focus fails to work effectively (see Inoue, col. 1, line 60 – col. 2, line 7).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Kanamori and Inoue to modify the image capture system by providing a manual focus for adjusting focus of an image using an adjusting ring when capturing an image so that the user would perform focus operation more effectively to obtain a satisfactory image in a case when automatic focus fails to do so.

Regarding claim 18, Kanamori does not teach that the enclosure further comprises a zoom control ring residing on the enclosure and configured to adjust a focal length of the second lens used when capturing the image.

Inoue teaches a camera (80) that is enclosed in a waterproof housing (20) which further includes an adjusting ring (35 or 55) provided thereon for manually adjusting zoom lens of image capture system (see Inoue; Figs. 1, 4 & 5; col. 3, lines 32-49, col. 4, lines 46-60 and col. 5, lines 11-46). According to Inoue, manual zoom adjustments are important during photography since the target object may change frequently and quickly, and therefore manual zoom adjustments to focal length of the lens are used to compensate such changes to obtain a satisfactory picture (Inoue, col. 1, line 64 – col. 2, line 7).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Kanamori and Inoue to modify

the image capture system by providing a manual zoom for adjusting a focal length of the second lens using an adjusting ring so that the user would perform manual zoom operation to quickly change the focal length of the lens for obtaining a satisfactory image of the object when the target object is moving frequently and quickly.

8. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kanamori et al. (US 6,138,826) in view of Inoue (US 5,822,622) and in further view of Niikawa et al. (US 2001/0043279 A1).

Regarding claim 17, by incorporating the combined teachings of Kanamori and Inoue as discussed in claim 16 and/or claim 18, the image system of Kanamori and Inoue includes disclose adjusting rings provided on the enclosure to allow the user to manually adjust the operation of the image capture system in cases when the environment and/or object is changing that causes failure of an automatic operation mode for obtaining a satisfactory image.

However, both Kanamori and Inoue are silent about an aperture ring residing on the enclosure and configured to adjust an aperture used when capturing the image.

In a reference to Niikawa, a camera apparatus includes an aperture ring (43) for manually adjust the aperture of the camera to correct exposure in addition to other focus and zoom rings (41 & 42) for adjusting lens so that proper exposure of an image is corrected in response to the user's intervention. See Niikawa, Figs. 1 & 2, paragraphs [0058]-[0060].

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify the image capture system of Kanamori and Inoue to include an aperture for the digital camera and an aperture ring residing on the enclosure to allow the user to manually adjust the aperture of the camera to obtain proper exposure of an image in accordance with the user's intend to obtain a satisfactory image regardless changes of environment or target objects, thereby improving the operation of image capture system.

***Conclusion***

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nhan T. Tran whose telephone number is (571) 272-7371. The examiner can normally be reached on Monday - Friday, 8:00am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Ometz can be reached on (571) 272-7593. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



NHAN T. TRAN  
Patent Examiner